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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

First Inventor

Title

Express Mail Label No.

ROBERT JOSEPH HARLEY

METHOD FOR SOLVING FROBENIUS  
EQUATIONS FOR ELLIPTIC-CURVE

CRYPTOGRAPHY

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-145022278 U.S. PTO  
10/733320

121203

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 13]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the invention
  - Brief Summary of the invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
5. Oath or Declaration [Total Sheets 1]
  - a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
  - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ Paper
  - c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☐ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation☐ Divisional☐ Continuation-in-part (CIP)

of prior application No.: .....

Prior application information:

Examiner

Art Unit:

For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**

Customer Number:

OR ☒

Correspondence address below

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ROBERT JOSEPH HARLEY

Registration No. (Attorney/Agent)

Signature

*Robert Harley*

Date

DECEMBER 9<sup>TH</sup> 2003

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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16698 U.S. PTO  
121203

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$) 385

## Complete if Known

Application Number \_\_\_\_\_

Filing Date \_\_\_\_\_

First Named Inventor ROBERT JOSEPH HARLEY

Examiner Name \_\_\_\_\_

Art Unit \_\_\_\_\_

Attorney Docket No. \_\_\_\_\_

## METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number \_\_\_\_\_

Deposit Account Name \_\_\_\_\_

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	2001	770	385	Utility filing fee	<u>385</u>
1002	2002	340	170	Design filing fee	
1003	2003	530	285	Plant filing fee	
1004	2004	770	385	Reissue filing fee	
1005	2005	160	80	Provisional filing fee	
<b>SUBTOTAL (1)</b>					<b>(\$)</b> <u>385</u>

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims 9 - 20\*\* = 0 × Fee from below 9 = 0

Independent Claims 1 - 3\*\* = 0 × Fee from below 43 = 0

Multiple Dependent \_\_\_\_\_

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Description
1202	2202	18	9	Claims in excess of 20
1201	2201	86	43	Independent claims in excess of 3
1203	2203	290	145	Multiple dependent claim, if not paid
1204	2204	86	43	** Reissue independent claims over original patent
1205	2205	18	9	** Reissue claims in excess of 20 and over original patent
<b>SUBTOTAL (2)</b> (\$) <u>0</u>				

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description		Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)			
1051	130	2051	65	Surcharge - late filing fee or oath		
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet		
1053	130	1053	130	Non-English specification		
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination		
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		
1251	110	2251	55	Extension for reply within first month		
1252	420	2252	210	Extension for reply within second month		
1253	950	2253	475	Extension for reply within third month		
1254	1,480	2254	740	Extension for reply within fourth month		
1255	2,010	2255	1,005	Extension for reply within fifth month		
1401	330	2401	165	Notice of Appeal		
1402	330	2402	165	Filing a brief in support of an appeal		
1403	280	2403	145	Request for oral hearing		
1451	1,510	1451	1,510	Petition to institute a public use proceeding		
1452	110	2452	55	Petition to revive - unavoidable		
1453	1,330	2453	665	Petition to revive - unintentional		
1501	1,330	2501	665	Utility issue fee (or reissue)		
1502	480	2502	240	Design issue fee		
1503	640	2503	320	Plant issue fee		
1460	130	1460	130	Petitions to the Commissioner		
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)		
1806	180	1806	180	Submission of Information Disclosure Stmt		
8021	40	8021	40	Recording each patent assignment per property (times number of properties)		
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))		
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))		
1801	770	2801	385	Request for Continued Examination (RCE)		
1802	900	1802	900	Request for expedited examination of a design application		
Other fee (specify)						
*Reduced by Basic Filing Fee Paid						
<b>SUBTOTAL (3)</b>						

## SUBMITTED BY

Name (Print/Type) ROBERT JOSEPH HARLEY Registration No. \_\_\_\_\_ Telephone (00) 33 6 7271 2496

Signature [Signature] (Attorney/Agent) \_\_\_\_\_ Date DECEMBER 9TH 2003

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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